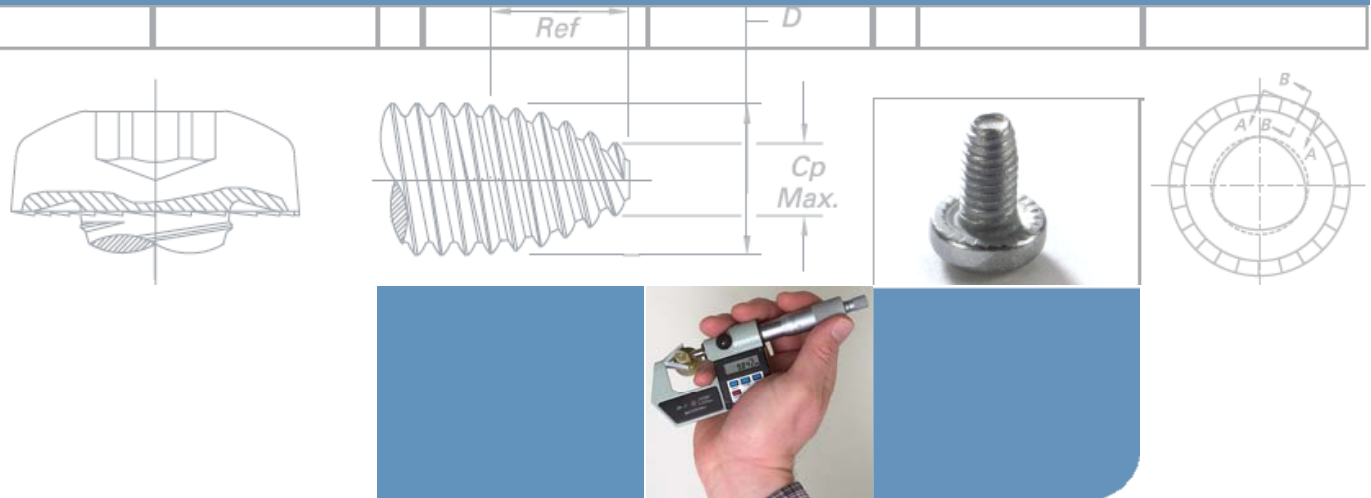


FASTITE 2000[®] Fasteners For Thin Sheet Metal



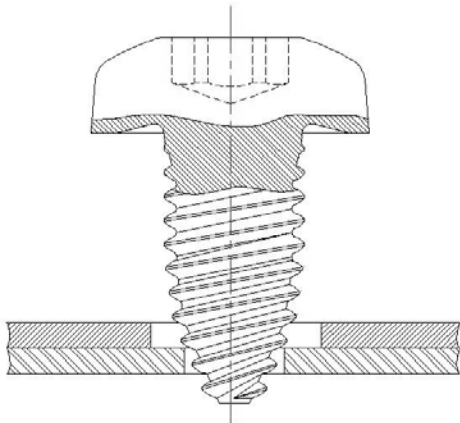
A Member of the TAPTITE 2000[®] Family of Fasteners



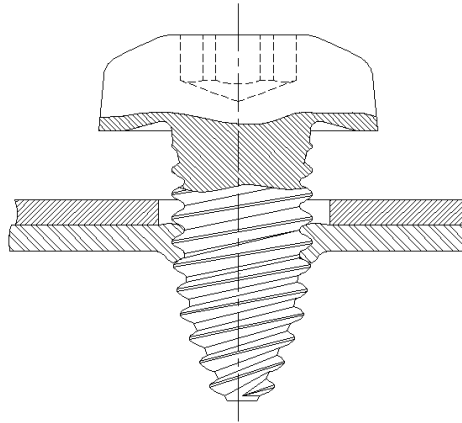
Leaders in Lowering the Cost of Assembly



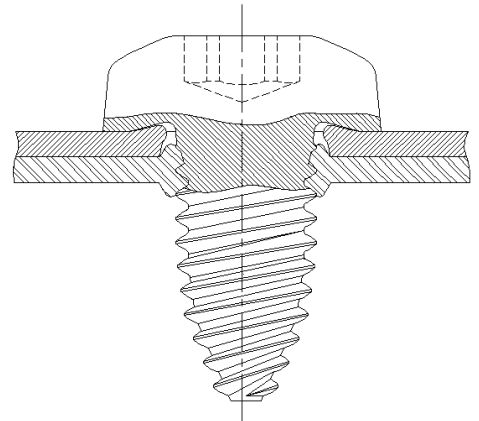
TWIN LEAD HELIX PROVIDES STARTING STABILITY



FORWARD EXTRUSION WITH DIAMETRICALLY OPPOSED THREAD ENGAGEMENT



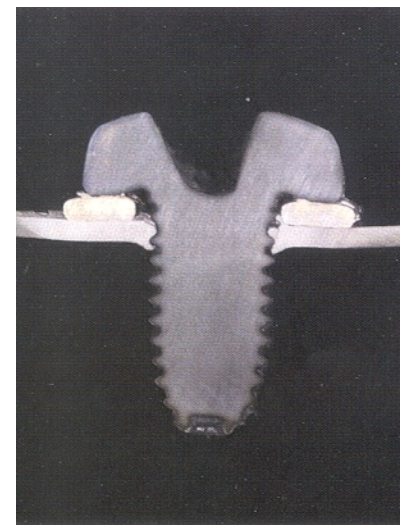
INCREASED CORE DIAMETER APPROACHING THE UNDERSIDE OF THE HEAD CAUSES ADDITIONAL FORWARD AND BACKWARD EXTRUSION PROVIDING INCREASED THREAD ENGAGEMENT



THE SOLUTION FOR THIN SHEET METAL APPLICATIONS

Over the last several years, industry has improved assembly processes and reduced the size and weight of components made from thin sheet metal and fasteners used to join these components. As a result, 0.5mm thick sheet metal is not an uncommon thickness for a typical assembly. Yet today's assembly solutions are limited and often poorly designed for both joint performance and overall cost efficiency.

FASTITE 2000[™] thread forming screws were developed to create strong mechanical joints with excellent thread engagement into untapped thin sheets, while providing the **"LOWER IN-PLACE COST SAVINGS"** associated with TRILOBULAR[®] thread forming screws. FASTITE 2000[™] screws result in a cost-effective joint with increased failure torque and resistance to stripping, when compared to other fastener types and assemblies.



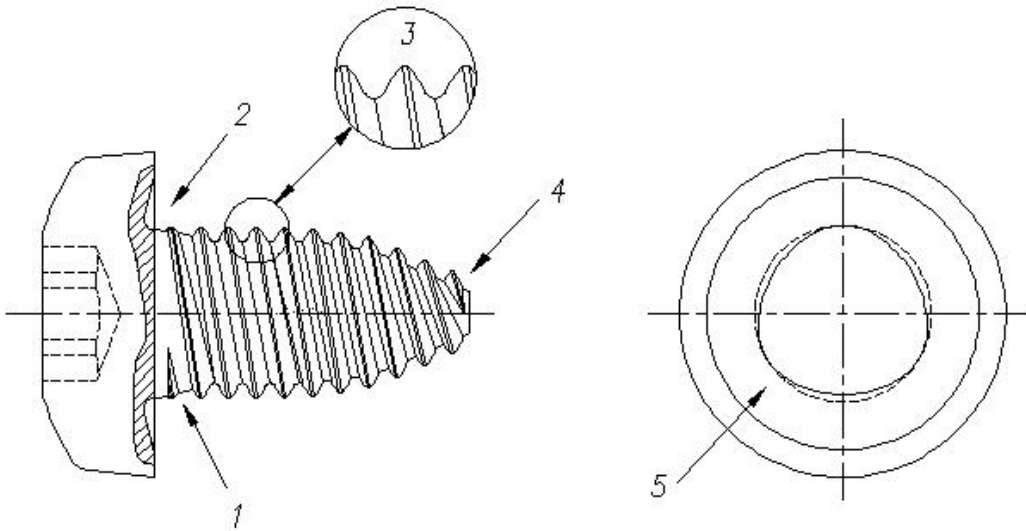
A Member of the TAPTITE 2000[®] Family of Fasteners



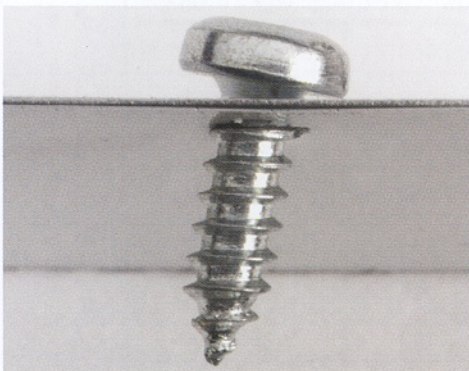


FASTITE 2000[®] Fasteners

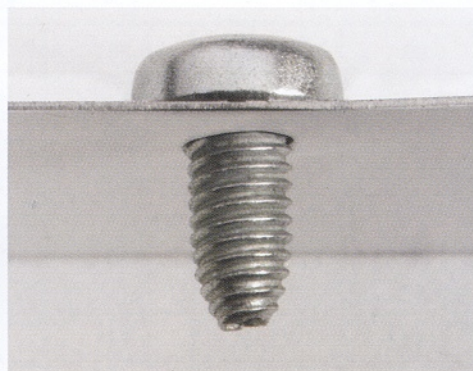
Performance Features



1. Tapered thread root adjacent to the screw head to maintain major thread diameter close to the head.
2. Undercut feature to increase assembly failure torque.
3. Radius Profile[™] thread design combined with the twin-lead helix angle to provide a mating thread system whereby diametrically opposed threads are engaged.
4. Non cut-off "CA" style point for extruding in small holes.
5. TRILOBULAR[®] screw thread body to provide "resistance to loosening".



Standard type AB screws lean over as the screw tends to align with the helix angle of the thread. Stripped threads or loose assemblies result.



FASTITE[®] 2000[™] fastener starts straight and finishes straight, providing a secure, tight assembly. The twin-lead thread centers the fastener in the hole.

FASTITE 2000[®] Fasteners



FASTITE[®] 2000[™] Fastener Performance

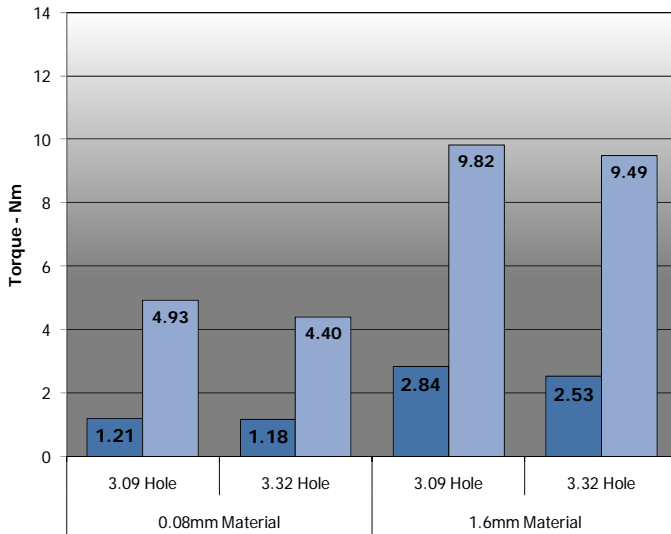
Fasteners:

M4 x 0.7 x 7mm Pozidriv Undercut Pan Head
w/ Optional Serrations Under Head Zinc Finish

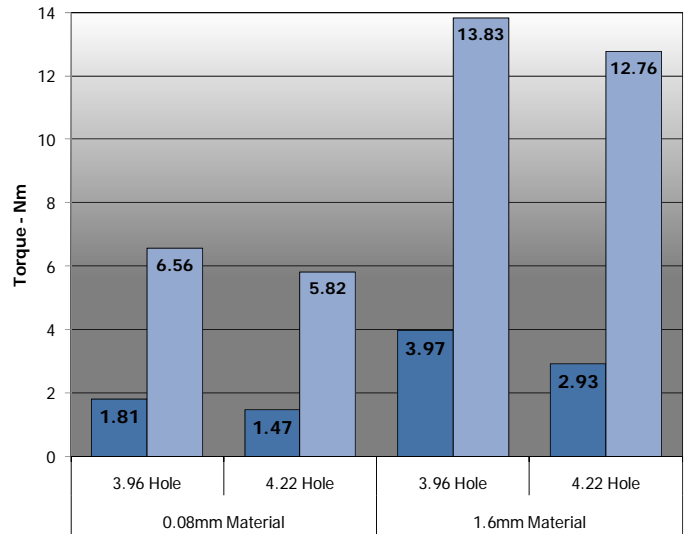
M5 x 0.8 x 9mm Pozidriv Undercut Pan Head
w/ Optional Serrations Under Head Zinc Finish

Material: **Steel**, 0.8mm and 1.6mm thick
Hardness: HRB 85 {Brinell 142 (500kg)} Finish: Plain

M4 FASTITE[®] 2000[™] Fastener Performance

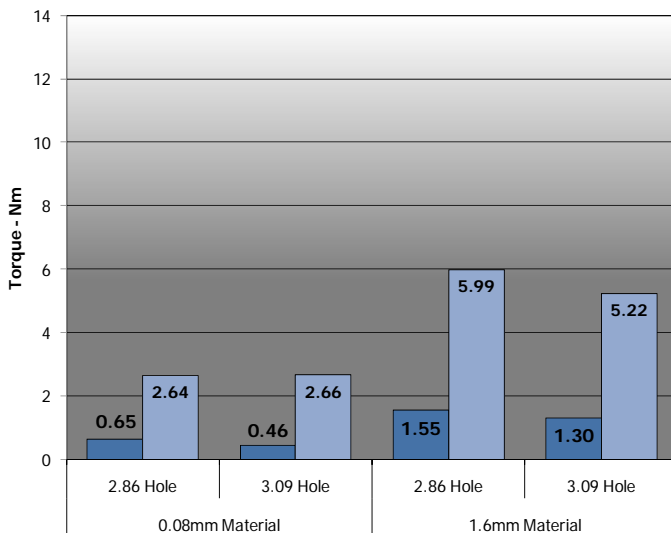


M5 FASTITE[®] 2000[™] Fastener Performance

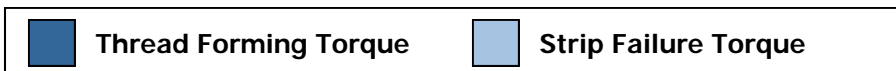
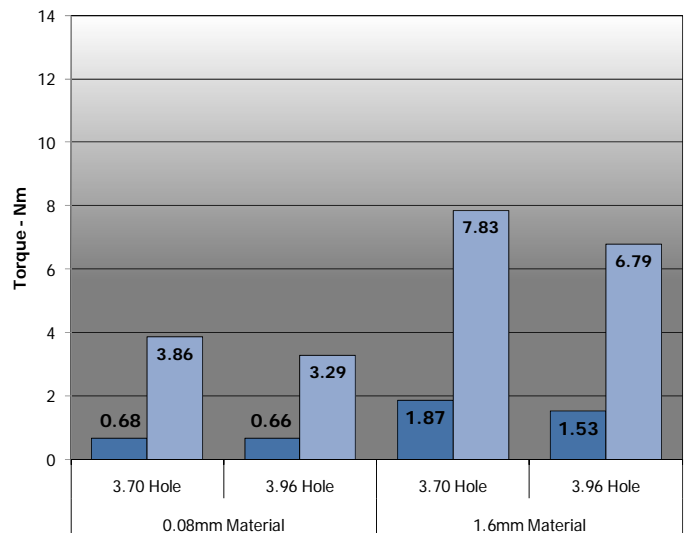


Material: **Aluminum**, 6061-T6, 0.8mm and 1.6mm thick.
Hardness: HRB51 {Brinell 84 (500kg)} Finish: Plain

M4 FASTITE[®] 2000[™] Fastener Performance

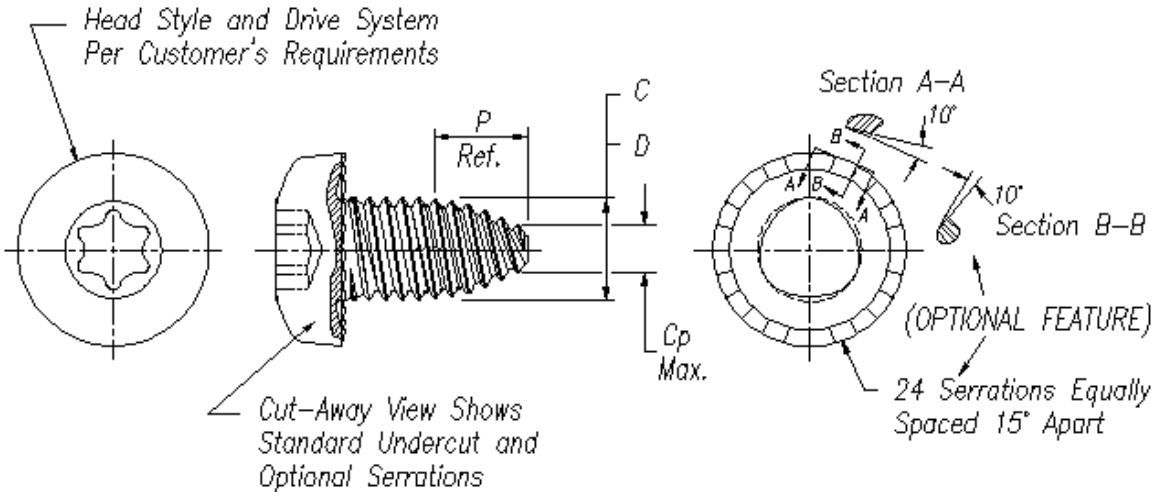


M5 FASTITE[®] 2000[™] Fastener Performance





FASTITE 2000® Fasteners



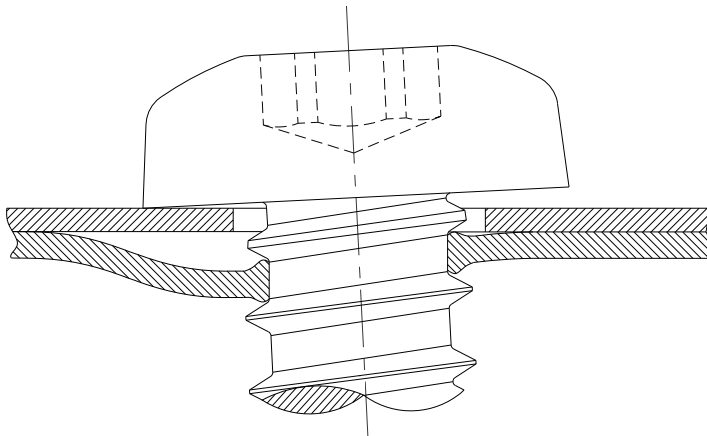
FASTITE® 2000™ Fastener Specifications

Screw Size	Body Dimensions				Point Dimensions		*Recommended Pilot Hole Size		
	Max.	C Min.	D Max.	D Min.	Cp Max.	P Ref.	Steel	Aluminum	
Metric Sizes (mm)					Material Thickness 0.70mm - 1.60mm				
MR 2 x 0.40	2.01	1.93	1.97	1.88	1.00	1.80	1.48 - 1.61	1.35 - 1.48	
MR 2.5 x 0.45	2.52	2.43	2.48	2.37	1.30	2.03	1.92 - 2.06	1.77 - 1.92	
MR 3 x 0.50	3.02	2.93	2.97	2.87	1.70	2.25	2.35 - 2.51	2.19 - 2.35	
MR 3.5 x 0.60	3.52	3.42	3.46	3.35	1.90	2.70	2.72 - 2.92	2.53 - 2.72	
MR 4.0 x 0.7	4.02	3.92	3.95	3.83	2.20	3.15	3.09 - 3.32	2.86 - 3.09	
MR 5 x 0.80	5.02	4.91	4.94	4.81	2.90	3.60	3.96 - 4.22	3.70 - 3.96	
MR 6 x 1.00	6.03	5.90	5.93	5.78	3.40	4.50	4.70 - 5.03	4.38 - 4.70	
MR 8 x 1.25	8.03	7.87	7.91	7.71	4.80	5.63	6.38 - 6.78	5.97 - 6.38	
Inch Sizes (inches)					Material Thickness .028" - .063"				
2-56	0.0880	0.0840	0.0862	0.0818	0.040	0.080	.063 - .069	.057 - .063	
3-48	0.1010	0.0970	0.0989	0.0944	0.045	0.094	.072 - .079	.065 - .072	
4-40	0.1138	0.1098	0.1113	0.1067	0.047	0.113	.080 - .088	.071 - .080	
5-40	0.1268	0.1228	0.1243	0.1197	0.060	0.113	.093 - .101	.084 - .093	
6-32	0.1413	0.1353	0.1382	0.1314	0.057	0.141	.097 - .108	.087 - .097	
8-32	0.1674	0.1614	0.1643	0.1575	0.083	0.141	.123 - .134	.113-.123	
10-24	0.1934	0.1874	0.1892	0.1822	0.082	0.188	.136 - .149	.122 - .136	
10-32	0.1936	0.1876	0.1905	0.1837	0.109	0.141	.149 - .160	.139 - .149	
12-24	0.2194	0.2134	0.2152	0.2082	0.108	0.188	.162 - .175	.148 - .162	
1/4-20	0.2534	0.2474	0.2484	0.2411	0.120	0.225	.185 - .201	.169 - .185	

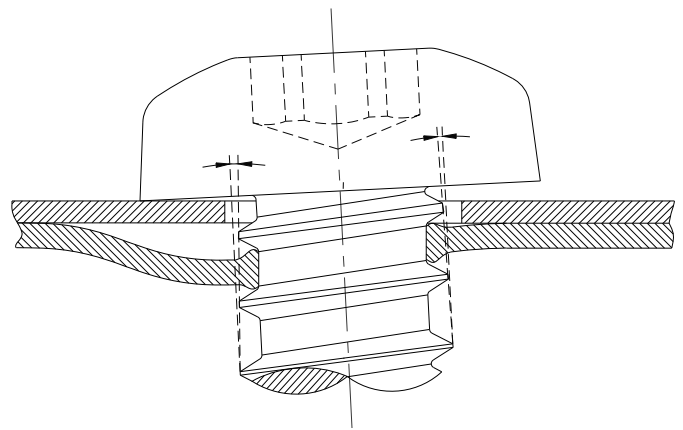
* Recommended hole size shown is the range of hole sizes and does not imply hole tolerance. Hole tolerance is to customary allowance relative to process used.

Disadvantages of Sheet Metal Screws

Sheet metal deflection due to single lead thread design when the material is equal or less than the thread pitch.

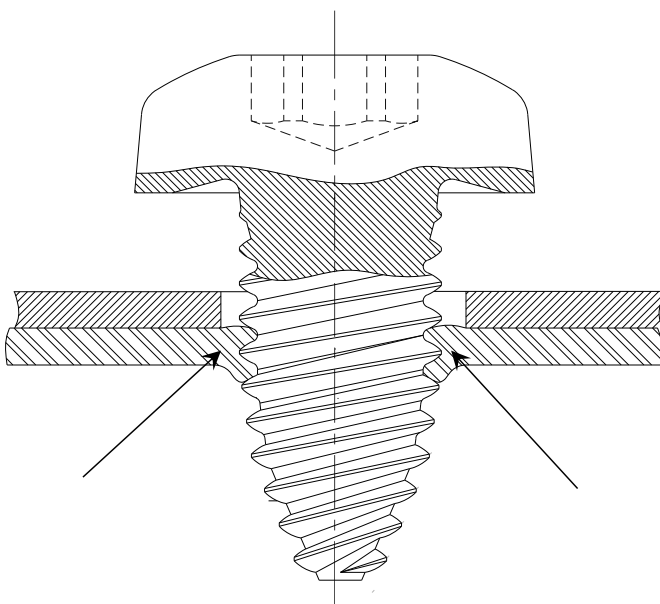


When a parallel core diameter is maintained to the underside of the head under-filled screw thread crests are created producing a gap between the internal and external mating threads of the assembly.

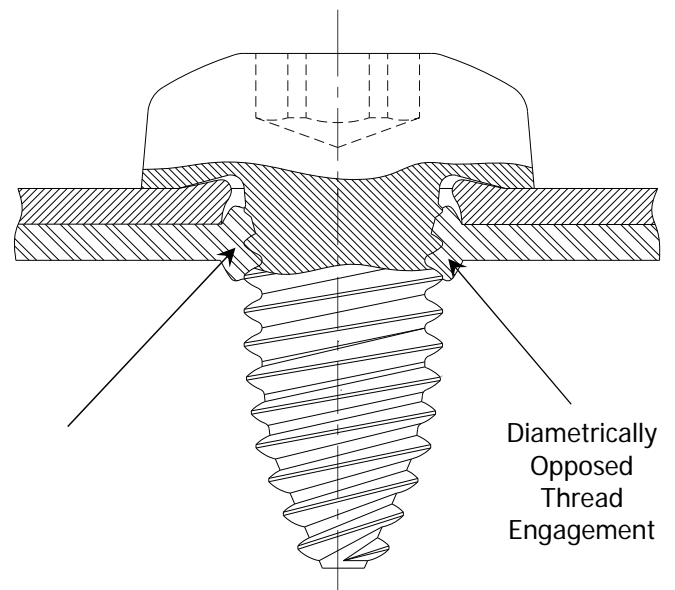


Advantages of FASTITE[®] 2000[™] Screws

Forward extrusion when used in smaller holes, where radial thread engagement exceeds 100%. Note diametrically opposed thread engagement resulting in improved failure torque.

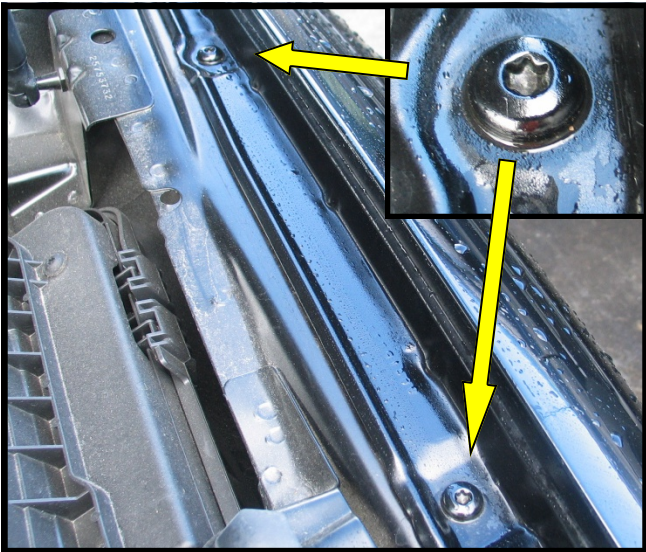


Increased core diameter approaching the underside of the head causes additional forward and backward extrusion providing increased thread engagement.





FASTITE 2000[®] Fasteners

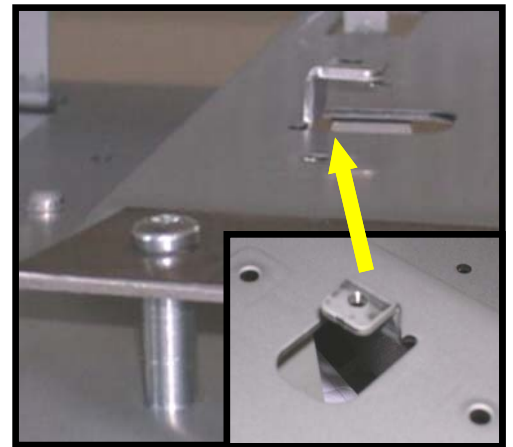


FENDER ATTACHMENT

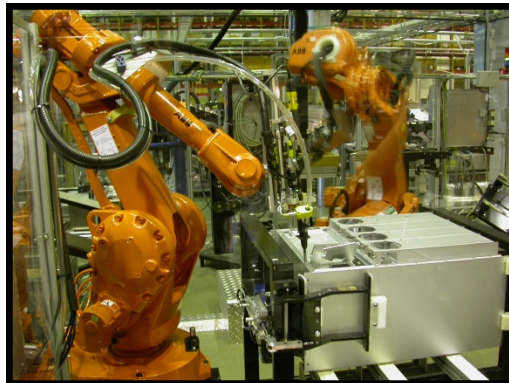
M6 FASTITE[®] 2000[™] Fasteners (6 per vehicle)
Buick Lucerne & Cadillac DTS Models



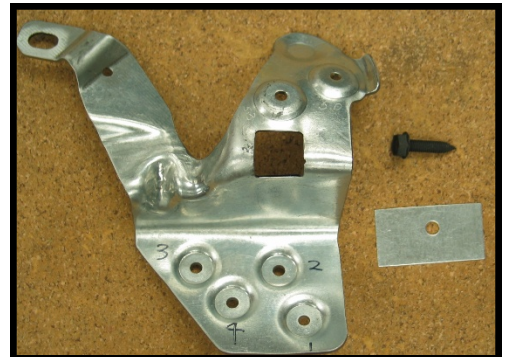
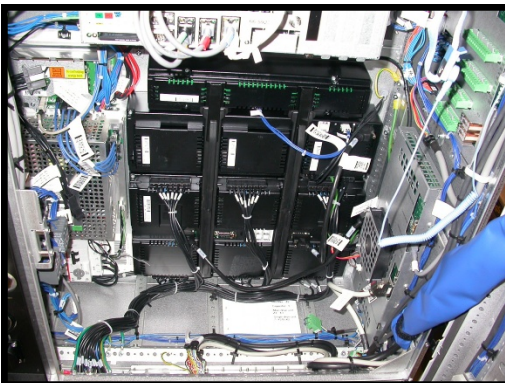
FASTITE[®] 2000[™] FASTENERS IN LCD TVs



FASTITE[®] 2000[™] FASTENERS USED TO ASSEMBLE ELECTRICAL COMPONENTS IN ELECTRICAL CABINETS FOR ROBOT MANGAGEMNET



M6 FASTITE[®] 2000[™] FASTENERS FENDER RAIL TO ENGINE COMPARTMENT IN GM VEHICLES, CADILLAC DeVILLE and BUICK LeSABRE



REMINC/CONTI

Research Engineering & Manufacturing Inc. (REMINC) and Conti Fasteners AG (CONTI) have successfully marketed TAPTITE® fastener technology internationally since 1961. Their success has been accomplished by licensing and training leading fastener producers worldwide.

The technical program in the United States is under the direction of REMINC, located in Middletown, Rhode Island and in other countries under the direction of CONTI, situated in Baar, Switzerland.

Although REMINC and CONTI are separate corporations and operate independently, each is dependent on the other for certain functional activities.

AVAILABILITY

Currently there are 68 qualified producers located in 20 countries utilizing the Technical Know-How, Patents, Trademarks, and Engineering and Marketing services of REMINC/CONTI. These producers delivered a volume in excess of 17,000,000,000 pieces of TRILOBULAR® fasteners in 2000, comprising a mix of products.

The proprietary products available in the program are marketed and sold, not as fastener items, but rather as **COST REDUCTIONS TO END-USERS OF ASSEMBLED PRODUCTS.**

The proprietary fasteners offered to the assemblers are the means to an end, i.e. used to generate cost reductions while at the same time providing reliably tightened joints.

ORDERING/SUPPLY

When ordering from qualified TRILOBULAR® fastener producers, be sure in all cases to specify the FASTITE 2000™ brand name, thread size, nominal length, head style, or any other special features required, finish, and quantity.

DISCLAIMER CLAUSE

The values shown in this brochure are for guidance only. They are not meant to be used for design criteria. Their use and reliance thereon for any purpose by anyone is entirely voluntary and at the sole risk of the user. REMINC/CONTI are not responsible for any loss, claim, or damage resulting from their use. Consult our application engineers or the application engineering department of one of our many qualified producers for your specific application data.

TECHNICAL ASSISTANCE

This brochure contains basic information needed to achieve the cost-savings potential of FASTITE 2000™ fasteners.

To obtain further assistance and a list of qualified producers, visit our website at www.taptite.net or contact;

REMINC
Tel: 401-841-8880
Email: reminc@reminc.net

CONTI Fasteners AG
Tel: +41 (0)41/761 58 22
Email: conti@contifasteners.ch

SERVICES

A summary of the capabilities of REMINC/CONTI in support of manufacturers:

Technical Support

- New Product Development
- Research and Development Reports
- Technical Manuals
- Technical Reports
- Technical Information Updates
- Engineering Consultation
- Computer Aided Design and Analysis
- Engineering Training
- Tooling Design and Procurement
- Manufacturing Guidance
- Manufacturing Cost Reduction
- Metallurgical Analysis
- End-User Application Guidance
- Technical Training Seminars

MARKETING SUPPORT

- Application Definition
- Application Reports
- Performance Documentation
- Sales Seminars
- Audio/Video Materials
- Graphics
- Customer Product Brochures
- Technical Liaison
- Joint Customer Visits
- Cooperative Studies
- Trademark and Patent Use

In addition to the above stated detail, REMINC/CONTI are positioned to provide:

- Contract Testing
- Contract Engineering
- Consultation Activities
- Contract Joint Analysis
- Fastener Engineering Training

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5,722,808 / 6,089,806 / 6,089,986 / 6,261,040B1 / 6,494,655B1 / 6,494,656B1 / 6,712,708B2



Research Engineering & Manufacturing Inc.
55 Hammarlund Way, Tech II, Middletown, RI 02842 USA
Tel: 401-841-8880 Fax: 401-841-5008
www.taptite.com
E-mail: reminc@reminc.net



CONTI Fasteners AG
Albisstrasse 15, 6340 Baar (ZG) Switzerland
Tel: +41 (0)41/761 5822 Fax: +41 (0)41/761 3018
www.taptite.com
E-mail: conti@contifasteners.ch